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ABSTRACT

This paper, generated by the Austin, Texas, Independent School District's Office of Research and Evaluation, offers a set of working hypotheses about what a school district must do in the implementation of programs to improve the cost/effectiveness ratio of educational innovations. The author draws on three years of the Austin school district's experience with evaluating program implementation and on recent literature on program development and evaluation. Her analysis leads her to conclude that school district programs will be improved by setting priorities by which programs are approved or disapproved, encouraging the school district staff to understand how the district functions as an organization and how the program implementation process works, devising realistic program designs, and making maximum use of evaluation information. (Author/DS)

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Evaluation in the Seventies:
What We Have Learned About
Program Development and Implementation

Freda M. Holley

Austin Independent School District

Publication #75-57

Evaluation in the Seventies: What We Have Learned About Program Development and Implementation

Freda M. Holley

Need and resource have met head-on in the Seventies. Society at last faces the inexorable decision required of a world with finite resources up against the wall of seemingly infinite human desires and needs. New York fired policemen and Chicago cut the length of its school year: Unthinkable acts a few years ago, but forerunners to a mood in America where significant numbers of the electorate suddenly hear and understand the ascetic messages of a young Jerry Brown.

This clash between resources and needs in Texas and in Austin is muted, but nonetheless clear. Resources are scarce and growing scarcer: utility bills soar, transportation costs skyrocket, salaries inflate, and taxpayers rebel.

But the needs do not diminish. A government spokeman says:

> It can still be said, unequivocally, that the major unresolved issue facing American education remains how to significantly improve the education of minority and poor children. After years of social change, large scale funding, innovations of many types, and attempts at radical departures in school governance, it is safe to conclude there are no panaceas, no quick and painless solutions, no single strategy which can be counted upon to significantly enhance the educational experiences and opportunities of minority children.[1]

And the Austin Board of Trustees includes among its four top priorities for the year, the achievement of low socio-economic students. The country faces up to the inescapable fact that ten years of declining achievement test scores really do mean that students are less competent in basic skills[2] while Austin takes its first long, surprised look at district test scores below the national norms. Nationally and locally people discover that gifted students are indeed a neglected minority. In Boston and in Austin we are reminded by the court that minority isolation is still illegal, and by Riverside, California that desegregation of schools is no direct route to integration within classrooms.[3]

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[1]Ray C. Rist. Race and schooling: Key policy issues. The Educational Forum. Vol. 40, No. 4, May 1976, p. 514.

[2]A. Harnishfeger and D. E. Wiley. Achievement Test Score Decline: Do we need to worry? St. Louis, Mo.: CEMREL, Inc., 1975.

[3]Harold B. Gerard and Norman Miller. How busing failed in Riverside. Psychology today. Vol. 10, June 1976. p. 100

And suddenly the meaning of educational accountability becomes fully clear: We can no longer afford any but the best, the most effective people and programs and both must yield dollar-for-dollar value.

The public says reduce your budgets, and ideally educators should be able to say, "Well, yes, if we must, we will eliminate 'this' and keep 'that' because 'that' has higher pay-off for students."

Unfortunately, today we cannot respond that way with much surety, because public schooling has never really had to be a cost-effective industry, nor has it sought to be. Until very recently it could be said:

> failure to evaluate educational programs is a shortcoming not limited to the Federal Government. State and localities, which supply 95% of the funds for public education have done little to evaluate the effectiveness of their school systems and educational approaches.[1]

Thus, one finds that research and evaluation units in public school are a most recent development. So recent in fact that

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[1]John W. Evans, "Evaluating education programs - Are we getting anywhere? Educational Researcher. Vol. 3, No. 8, September 1974. P. 8.

only now are effective technologies for defining or measuring either cost or effectiveness beginning to emerge.[1]

Moreover, educators, school board members, and communities do not understand the constraints on the technologies of their new research and evaluation units, find such constraints unpleasant, and hence do not assist them in providing the minimal conditions under which such technology can derive cost-effectiveness answers.[2] Research and evaluation units must thus inevitably struggle not only with their own technological imperfections,

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[1]This is not the simple problem it would appear to be on the surface since that "schooling industry" that currently constitutes 7% of the entire American economy (the "education" industry which also includes such things as book production, libraries, and museums constitutes some 29%) actually has several production functions: knowledge, skill building, and certification in addition to two possibly even more important service functions, custodial service (childsitting and keep young people off the streets and out of the job market) and community center services (PTA, school plays, etc.). True productivity measures will have ultimately to encompass all these functions. Kenneth E. Boulding, The schooling industry as a possible pathological section of the American economy. Review of Educational Research. Vol. 42, No. 1 Winter 1972. Pp. 129-190.

[2]T. R. Houston. The behavioral sciences impact effectiveness model. In P.H. Rossi and W. William (Eds.), Evaluating social programs. New York: Seminar Press, 1972, P. 63.

Ann M. Lee and Freda M. Holley. An ideal research design in a public school setting: Or where are you Campbell and Stanley now that we need you? Paper presented at the Annual Meeting of the American Educational Research Association, Washington, D.C., 1975.

but often with an alienated environment as well, hence postponing the answers education needs.[1]

Finally, in Austin as elsewhere, rather large sums of money have been expended to meet some of our most pressing educational needs, particularly in recent years. Until the Office of Research and Evaluation was begun three years ago, little or no systematic effort was being made to measure the cost-effectiveness of these efforts. Since this office began we have discovered little that has been differentially effective. Such differential effectiveness is the first prerequisite since: $ extra/gain in effectiveness (over base program) = cost effectiveness of new programs. When, for example, around $350,000 are spent to add aides to classrooms and no significant increment in knowledge gains are evidenced, no meaningful cost/effectiveness ratio can be calculated. Indeed, 0 gain in effectiveness = $350,000. This example to a large extent, however, describes the picture that we have found for numerous programs all around the United States as well as here in Austin.[2,3] A major reason for this appears to be our lack of knowledge about

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[1]Jon F. Wergin. The evaluation of organizational policy making: A political mode. Review of Educational Research. Vol. 46, No. 1, Winter 1976, p. 82.

[2]Allan C. Ornstein and Barney Berlin. Social policy and federal funding. Journal of Research and Development in Education. Vol. 8, No. 3, 1975, Pp. 86-87.

[3]As a side note at this point, it is well to note that Austin is not alone in this situation. Austin has probably been far more effective in its efforts than the majority of school districts around the country. One has only to visit other parts of the country or talk with educators from other cities to see

implementing educational improvement programs. The Seventies have in fact given us our first large scale research base on the organizational implementation of school district change programs.

In fact our greatest gain to date from educational change efforts resulting from the 1965 federal ESEA legislation may be that out of initial negative findings can come an increased understanding of the processes of educational improvement that will lead to more effective intervention programs in future efforts: Perhaps, the greatest potential of evaluation must lie not so much in telling us where we have been as in making our pursuit of the future a more rational endeavor.[1]

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this. Moreover, parent, teacher and student surveys by ORE in Austin continuously reveal all these groups in the majority to be positive and supportive in attitude. Research directors in other cities tell me this is not true in their surveys. However, Austin is at the forefront of cities that have chosen to honestly, critically, and openly look at their efforts. In that process we lay open unfortunate truths that are endemic to all of education. Having done this, however, Austin is in the position to make decisions on the basis of benefits to students rather than political, pressure-group-generated demands and thus to become a truly cost/effective system. As a second aside it is also crucial to implore that federal and state governmental agencies not commit the mistake of withdrawing resources from a district because of its willingness to gather and examine data about its activities. For the Office of Civil Rights to withold all ESAA (desegregation aid) funds from a district because it has identified a disproportionate number of minority students being disciplined and designed an intervention program to address the obvious need is evidence on their part of decision-making which is neither rational nor of sound judgement. It is hardly an act to encourage accurate evaluation in sensitive areas by a school district.

[1]Weiss, C.H. Evaluation research. Englewood Cliffs, N.J. Prentice Hall, 1972.

The major intent of this paper[1] is to extract from the Office of Research and Evaluation's three years of experience with evaluating program implementation and from the rather extensive recent literature on this topic, an initial set of hypotheses about what a school district must do in the implementation of programs if the differential effectiveness factor in the cost/effectiveness ratio is to become other than zero.

These hypotheses are stated below in guideline form, but given the state of education's current understanding of its functions and products, it remains clear that they can be in truth no more than working hypothesis. However, our understanding of our own effectiveness is likely to be enhanced by any theoretical approach to our activities regardless of how tentative it may be.

Thus, it is postulated that in future implementation efforts, there will be an increased likelihood of program success and effectiveness to the extent AISD assures:

1. Priorities by which programs are approved or disapproved.
2. An understanding by both top-level administrators and board members, as well as by program developers, staff members and evaluators of the organizational context and its characteristics by which programs live or die.
3. An understanding by those same groups of the program implementation process.
4. Realistic program designs.
5. Adequate evaluation and full use of evaluation findings.

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[1]This paper will actually be a first draft of a more elaborate statement to be prepared during the course of this year under ORE's study of Low S-E-S Student Achievement.

The background from which each of these postulates have been derived and an amplification of their meanings follow in the sections below.

1. PRIORITES

The realities of implemention which make the installation of even small scale programs a complex act in a school system dictates that only a very few new undertakings should be attempted at any one time. This principle, first documented from the literature in the first year evaluations of ORE, seems no less valid in 1976 than in 1973--perhaps even more so. Although the limit on new endeavors proposed there was three, the list of change efforts impacting the school system in each succeeding year has exceeded that number considerably. The second corollary was that no less than three years should be allocated to the full installation of a program. Thus, if only major programs initiated in or after 1972-73 are considered new efforts, we have the following listing (which could no doubt be added to without considerable effort) of new programs operating in 1975-76:

ESAA Programs (Basic, Pilot)
Community School Programs
State Compensatory Education Program
Sixth Grade Schools
Area Directors and Area Organization Schema for Elementary Education
Bilingual Education Programs (ESAA and Title VII)
Plan A Special Education Program
New Administrative Evaluation System
Quarter System
Evaluation/Accountability System

New Central Office Organization (Plus considerable changes in key administrative personnel)
Basic Skills Reemphasis
New Budgeting System (Bulletin 679 and Zero Base Budgeting)
Managing Classroom Positively

The effects of this number of major innovations organizationally will be described below. But, here it should be noted that a number of new programmatic efforts are competing for installation in 1976-77. Among those that have been proposed are:

A New Teacher Evaluation System
Gifted Program
High School for the Performing Arts
Parenting Project (Title IV C)
A Minority Recruitment Program
Revised Desegregation Plan

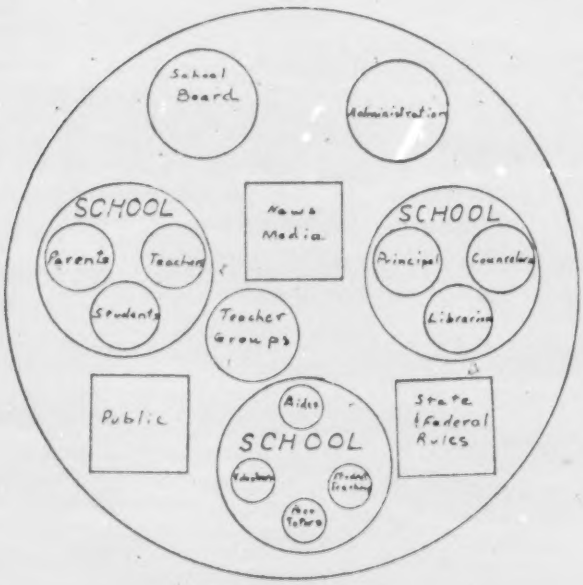
The "only three new programs" guideline is clearly an oversimplified one. The scope and potential impact of each new enterprise is a determining variable not taken into consideration by such a rule. In fact, however, the programs listed above are only those having considerable district-wide or near district-wide impact. Small pilot projects and federal grants of lesser dimensions also exist, but are not included.

While the establishing of priorities and the committment to observing them when faced by the obvious enormity of needs from which such a list springs will not be an easy task, our failure to do so may only postpone and perhaps worsen the inevitable facing of the truth. The school system will not have the resources, particularly the time resources, to meet all needs through successful implementation of such efforts.

Hence, the setting of priorities and adherence to them in program adoption would seem to be a prerequisite for successful implementation. Where mandatory programs such as the Quarter System or desegregation exist, it is perhaps wiser to forget other change programs.

2. ORGANIZATIONAL CONTEXT

AISD is an organization. Moreover it is a complex organization consisting not only of an overall system but also of numbers of linked subsystems.[1]



[1]This diagram first appeared in: F.M. Holley, J.E. Watkins, Jr., et.al. 1973-1974 Evaluation Report: Individually Guided Education (IGE) Program. Austin, Texas: Austin Independent School District, Office of Evaluation, 1974.

School systems are to be defined as organizations because

> They are rationally formulated, have officially stated goals, and contribute in specific ways to the larger system in which they are embedded. Schools, at least in part, socialize and allocate children so that eventually they will perform adult roles in the community adequately.[1]

Programs or change efforts are implemented in this organizational context. The overall system must be receptive to the effort and the program will have to be incorporated into the organization to be successful. A number of organizational characteristics should then be understood and taken into account in program design. These are covered in detail in sections A through E below.

A. GOALS

Goal clarity appears to be an important factor in organizational success. A good analogy to the public school system situation, however, might be found in a group of children given two hours a day to learn "games." Several things could result. First, some children may group together and learn, say, the total game of baseball. Another group may elect to learn the skills of passing or kicking a football. Still another single child may elect to follow his personal interest and memorize the rules of chess. It is virtually certain, however, that we could have little assurance that the children would come out with a common core of "game

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[1]Joseph B. Giacquinta. Status risk-taking: A central issue in the initiation and implementation of public school innovations. Journal of Research and Development in Education. Vol. 9, No. 1, 1975. P. 103.

learnings." Even more chaos might be expected if their parents were in and out saying now, "learn to win," and then "be a good sport," their teachers, "learn the rules," and their friends, "let's just have fun." Absurd as this situation may seem, schools are in just such a situation torn between mandates to teach moral development, skill development, knowledge gains, etc. with diverse groups of any given day demanding very different emphases.

For special program schools, this problem is magnified by competing programs--Title I saying bring up English reading scores while the bilingual program is saying teach the child to appreciate his culture.

Such a multiplicity of goals decreases the staff's surety about their organizational and instructional goals.

A less humanistic analogy would be building an industrial plant and telling it to build cars, can pickles, and produce television film all with the same workers and equipment!

Historically, by contrast education has responded successfully to clear mandates given concurrent resources. The National Defense Education Act and public unity after Sputnik brought great science achievement gains; the falling away of this support has been followed in the Seventies by steadily declining science enrollments and measured science knowledge.[1]

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[1]Judith M. Sauls. Highlights and trends from national assessment: Changes in science achievement. 1969-1973. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, 1976.

The Austin Board of Trustees on May 1, 1976, took an initial step in the direction of increasing district goal clarity by setting short term priorities. If actions in holding to these priorities and rejecting non-priority activities follow and are supported by top administrators, this should assist district personnel considerably. Proposed new activities set out on page 9 for 1976-77 could be considered against those priorities at this point. Further efforts to clarify goals and priorities and to use these in program development should, however, follow in future years.

B. PROGRAM STAFF NEEDS

Another view of any organization would be to see it as a series of formally defined roles and role relationships. These roles have been stabilized to a remarkable degree in school systems. This has the fortunate consequence that school doors open every morning even in times of considerable organizational stress. The congruent unfortunate consequence is that change even in a positive direction will be relatively difficult to achieve. The introduction of any type of innovation into such a scene could be perceived as a problem of "status risk taking"[1] since any changes will require role changes which are to some degree both potentially threatening and rewarding to staff members.

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[1]Giacquinta, op. cit. Pp. 103-114.

Viewed in this way organizational change becomes a drama where human actors will behave in accordance with the usual rules of human behavior. There are then a number of consequences to be expected whenever change is introduced.

It is generally agreed that humans act first out of self-interest. How this self-interest is expressed, however, is a function to a degree of the state of needs of the individual. Maslow[1] tells us that the person's basic needs such as those for physical well-being and safety come first, followed by emotional satisfaction and acceptance. Only when these are satisfied is the individual able to perform competently at higher need levels and congruently at higher intellectual levels.

Yet in educational change efforts we find program staffs operating more frequently than not with almost no job security. It is in fact the custom rather than the exception to find program staffs spending major portions of their time and energy preparing a proposal which will assure their jobs for the coming year.[2] Even so, unfortunately, they customarily remain on tenter-hooks up until or past the time when renewal of their jobs must come. The ESEA Title VII staff, for example, last year received approval of their program on

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[1]Maslow, A.H. A theory of motivation. In Behavioral Decisions in organizations, edited by Alver O. Elbing. New York: Scott, Foresman and Co., 1970. Pp. 366-382.

[2]Washington has recognized the problem but hardly came up with a wise solution. They forbid the writing of proposals by program staff, leaving the district to decrease the effectiveness of ongoing programs by using its own scarce resources (ESAA guidelines).

July 16 for beginning date of July 1. Title I school staffs are traditionally not certain of their jobs right up to the beginning of school. The not unexpected result, of course, is that federally funded positions have little role status. Not many competent persons will long live with such conditions; they will seek greater security. The likelihood of successful programs under such staff conditions will not be high.

For the district as a whole, however, there will also be a demoralizing potential. When a situation such as that arising with ESAA both last year and this year arises,[1] large numbers of federal programs staff members do find themselves without a job and the school system can make no provision for them. Both to them and to all other members of the regular staff who know them, however, the implicit message is likely to be that the status of the job is not very high.

On the other side of the coin, incompetent persons may be retained in or even transfered into federal positions which are sometimes seen as less crucial.

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[1]Both in 1976 and 1975, the Office of Civil Rights put the district on "hold" for the receipt of federal funds because of a question of the district's compliance with civil rights regulations. In 1975 this hold resulted in the total loss of ESAA Bilingual Program funds and the delay in receipt of Basic and Pilot program funds. At this date (July 1976), the district remains this year on a hold status.

An organization which either fails to rid itself of incompetence or to reward competence in this way finds change programs in trouble two ways: Internally from lack of competent staff and externally from lack of organizational acceptance of the program.

If indeed school systems are, as the literature suggests, change resisting organizations, the type of staff person then likely to be successful in innovation--resisting organizations can be described as follows:

> It requires an unusual combination of qualities: a creative programatic imagination; psychological security and a autonomous nature; an ability to trust others and to earn the trust of others; great energy and determination; a sense of timing; skill in organizing; and a willingness and ability to be machiavellian where that is what the situation requires.[1]

Finding and holding such staff seems unlikely if the status of program roles is so low.

C. PROGRAM STAFF AND DISTRICT STAFF INTERACTIONS

The interrelationships of regular and program staffs will be, in fact, of central importance. All change programs primarily seek the change of regular staff by program staff in some way -- the regular staff is expected to improve instructional skills, incorporate cultural references in their teaching, discipline students differently, etc. Such behavior changes will not occur at light

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[1]Herbert A. Shephard. Innovation-resisting and innovation producing organizations. In The planning of change, edited by Warren G. Bennis, K.D. Benne, and R.D. Chin. New York: Holt Rinehart and Winston, Inc., 1969. P. 524.

cost; whether they will occur at all will be a function both of the cost of the change to the district staff and the way the district staff perceives the program staff. How they perceive the staff will be a function of the competence and, as we have seen, the role status of the program staff.

The power and authority relationships of the system govern staff relationships to a considerable degree. In AISD, program staffs are not in the authority line over school staffs. The following description of a program in trouble has been observed in some AISD evaluations:

> The assumption that the...project could be implemented effectively with minimal involvement of the central office reflected a general lack of concern with authority and jurisdiction. The project director's relationship to the principals and teachers in the schools were advisory in nature. In the organizational structure of the school district his position was under the jurisdiction of the assistant superintendent for curriculum, who was highly critical of the...project. Given prevailing conditions, the project director was able to monitor the project, offer suggestions, remind participants of project goals and guidelines, and otherwise try to exert information leadership in project matters. He was not, however, in a formal position of authority.[1]

The net results of this in such projects has been that "local autonomy was often used to subvert project goals."[1]

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[1]Roland J. Pellegrin. Problems and assumptions in the implementation of innovation. Journal of Research and development in Education. Vol. 9, No. 1, 1975. Pp. 98-99.

One potential solution to the seemingly inevitable conflict that has so frequently arisen between school and program staff in AISD would in fact be the type of program demonstrated in both the Quarter System and the State Compensatory Education Program (SCE). These programs literally have no "program staff" for their primary components. The SCE program for example consists of the provision of materials and staff development. Both programs were derived under the direction of administrators with school authority. Attitude data collected in the SCE program evaluation indicate great enthusiasm for and acceptance of the project.[2,3] In the Quarter System, lines of district authority clearly acted to effect the program and implementation appears to be of a distinctly different and higher order.[4]

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[2]Joy Hester. State Compensatory Education 1975-76 Final Evaluation Report, Austin, Texas: Austin Independent School District, Office of Research and Evaluation, 1976.

[3]There is also, however, a necessity to monitor such an effort in school based planning very carefully since we know so little about this process. There is a possibility that such a project can have these results: "Changes in behavior turned out to be minor and not of the expected magnitude. What did happen was that structural changes were absorbed into customary operational procedures and work routines. The pressures of teaching students and carryout on other usual school activities took priority over devising new activities in accordance with the new structural arrangements. Discussions concerning the implementation of new structural elements which were tedious and time consuming did little but produce role overload, fatigue, and stress among staff members. The regular duties of teachers and administrators made long and medium term planning difficult." Roland J. Pellegin. Op. cit. P. 97.

[4]Paula Matuszek. Quarter System 1975-76 Final Evaluation Report. Austin, Texas: Austin Independent School District, Office of Reseach and Evaluation, 1976.

D. SCHOOL STAFF NEEDS

The above emphasis upon program staff needs is not to de-emphasize the needs of the district staff. As the "status risk-taking" view of organizational change emphasizes, it will be at considerable personal risk that principals, teachers or other school staff undertake a change effort.[1] Often, in fact, it is suspected that they enter programs only because in recent years the climate favoring innovators has rendered at least the image of desiring change as necessary to avoid status risk taking. A principal or staff rejecting an offer of "resources" may be viewed quite negatively. I have been told by a principal that a statement that participation by his school staff in a bilingual program was "optional" was clearly ridiculous. Community and district sanctions, although unofficial, were nonetheless operating to negate such a choice for the politically perceptive principal. However, for the school staff the risk factor of failing with the innovation, particularly with the exposure to intensive evaluation, is also extremely high. They will need to be continuously reassured about their status. Thus, school as well as program staff will require much central office attention and support.

Once, again, among programs this year where strong staff support of efforts is seen would be the Quarter System and the

[1]Giacquinta, op. cit.

State Compensatory Education program. In both cases one suspects that since no program staff existed, greater responsibility and attention was assumed by regular district administrative staff. One further suspects that new, lower-status staff in many programs may at least initially detract from program implementation. The authority attention appears in fact to have supportive effects, but also gives needed goal clarity (again in a system with a multiplicity of competing goals).

> The attitudes of administrators in effect tell the staff how seriously they should take project objectives. Unless the project seems to represent a district and school priority, teachers (or other staff) may not put in the extra effort and emotional investment necessary for successful implementation.[1]

E. ADMINISTRATIVE SUPPORT

There appears to be clear tendency in AISD as in other districts to underestimate these requirements of top-level administrative support for a program's implementation. As is obvious from the above sections, such support must be far more active than simple verbal endorsement. Board members, the superintendent and other top level staff must actively devote time to the project in various ways: attention to and moral support for the efforts of the program staff, intervention early-on in any developing tensions,

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[1]Paul Berman and M.W. McLaughlin. Implementation of educational innovation. The Educational Forum. Vol. 40, No. 3, March 1976. P. 361.

and continuous monitoring of the implementation schedule and process evaluation. An assessment of the staff strengths and particularly of the project director can be helpful in determining the extent of such support requirement, but even for the strongest staff in any real change effort, substantial time commitments of top administrators appear to be essential. At the school level, congruently, principals have been identified as the "gate keepers of change;" implementation appears to be totally dependent upon their support.

Here, perhaps more than anywhere else, is the major determinant of that prescription: no more than three innovations at a time. Top level staff will have too little time to adequately meet the needs of many innovations.

3. UNDERSTANDING THE INNOVATION AND INNOVATION PROCESS

Despite the increasing literature on innovation, we know less about this than we must. Several theories are currently being advanced, however. Gene Hall's Concerns Based Adoption Model is one. It proposes that adopters move through a series of levels parallel to personal need levels extending from an early-on focus on personal coping concerns toward a broadening concern with adaptation and improvement of the innovation. Each level has its own strategy and training requirements if the innovation is to move successfully through each of the stages.

Stages of Concern and Typical Expressions of Concern About the Innovation *

Stage of Concern	Expressions of Concern
Unaware	I don't know anything about it (the innovation).
Awareness	I have heard about the innovation, but I don't know much about it.
Exploration	How much of my time would use of this innovation take?
Early Trial	I seem to be spending all my time in getting material ready for students.
Limited Impact	I can now see how this innovation relates to other things I am doing.
Maximum Benefit	I am concerned about relating the effects of this innovation with what other instructors are doing.
Renewal	I am trying a variation in my use of the innovation that looks like it is going to result in even greater effects.

Another model views the process as consisting of three stages: "initiation, implementation, and incorporation." Each of these stages have different resource requirements. Typically, the last stage is never reached; yet it is here finally that we would expect to find learner outcome payoffs. This final stage in

*This table has been taken from the following paper with the author's permission: Gene Hall. The concerns-based adoption model: A developmental conceptualization of the adoption process within educational institutions. Paper presented at the American Educational Research Association, Annual Meeting, (Chicago: April, 1974).

particular means the assumption of considerable resource burdens by the district which are typically not planned for adequately. Where projects are specifically planned toward the contingency of the loss of funding as with the outside SCE program at the sixth grade schools there would seem to be an increased chance that long term pay-off through incorporation would occur.

Similarly with the reality of the school resource situation (the major portion of school budgets go to fixed personnel costs), it seems unwise for funding agencies to stimulate and encourage programs on a seed money basis where incorporation in the long range is obviously not likely because of heavy resource requirements (Community Schools or Title VII). However, it seems equally unwise of school systems to embark blindly into such projects.

> A related difficulty is the tendency of federal and state agencies to view their contributions as seed money to be replaced by district funds if the program is a success. But school districts know that the typical cost of such programs ($100-$500 or more per student per year) is beyond their ability to finance for the student body at large, and the use of district funds for applying the innovation to only a small number of students raises serious ethical questions for a regulated public utility.[1]

Study of each of the models above would undoubtedly be of benefit to us in our efforts at program development, but the truth remains

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[1]John Pincus. Incentives for innovation in the Public Schools. Review of Educational Research. Vol. 44, No. 1, Winter 1974 Pp. 113-114. P. 127.

that both the planning process and the parallel evaluation process for educational improvement or change efforts is an area of developing theory and concepts. While all the literature quoted in this paper amply demonstrates the attention this is being given, nonetheless:

> Innovation continues to be frustrated by the lack of technologies of planned change for use by practitioners. At all stages in planning and implementing innovation, there is a scarcity of theoretical principles and practices that would serve as guides to action. Each attempt at innovation is, in effect, a voyage on uncharted seas.[1]

Another writer calls for conceptualizations of the change process:

> We need principals, consultants, and other experts who know where and when to enter the process and how to engage school faculties in the types of problem identification and problem solving activities that will result in teachers devising effective and relevant strategies for meeting the needs of children.[2]

The understanding that we need in all educational improvement effort is that we do not have the answers. Our steps forward should be as tenative and painstaking as steps forward in a mist-covered, quaking bog. We need to carefully document our steps in every effort and to pause frequently, as in this paper, to add it all up and see what it says about future efforts. Failure should be a

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[1]Ronald J. Pellegrin. Op. cit. P. 100.

[2]David A. Shinan and Ann Lieberman. A non-model for school change. The Educational Forum. Vol. 38, No. 4, May 1974. Pp. 441-445.

prelude to success, not to inaction. What we must be about is the evolving of an "inquiring system," an organization in the process of self-renewal.[1]

4. DESIGNING REALISTIC PROGRAMS

At various points above it has been indicated that the scope and quality of a program design greatly influence the likelihood of program success. By and large, AISD programs designs tend again to exhibit the same types of problems identified in the literature which are discussed below in sections A to F.

A. GRANDIOSE DESIGNS

Needs of enormous magnitude and complexity appear to invite programs of grandiose dimensions.[2] Anyone who has taught poor children fully understands that a computer-based tutoring program for 15 minutes per day is unlikely to change drastically the achievement patterns in lower socio-economic-status schools. What we may not understand is that a program such as this year's (as well indeed as next year's) Project Assist is unlikely to make a difference for the opposite reason. Into one program effort is thrown a reading materials component, a math component, a drama program, a social work effort, teacher aides, teacher and aide staff

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[1]Williamson, Hohn N. The inquiring school: Toward a model of organizational self-renewal. The Educational Forum. Vol. 38, No. 4, May 1974. Pp. 393-410.

[2]Ornstein and Berlin op. cit. P. 88.

development, elementary and secondary school levels. Unfortunately, such multifaceted problem approaches rarely can be adequately implemented, as we see demonstrated in this year's Project Assist evaluation.[1]

> For such an approach to succeed . . . . it would have to be preceded and accompanied by systematic planning enormously comprehensive in scope. Furthermore, the implementation of radical revisions in educational programs requires impressive financial support, assistance by many administrators and specialists, acceptance by personnel, etc. . . . It is a curious fact that some educators believe that radical changes in education are easily accomplished even in short periods of time although it is universally known that even minor changes in the schools are achieved with great difficulty.[2]

Thus, again of the intervention efforts attempted this year, the State Compensatory Education Program with its provision of materials and limited school-specific staff development, both based on school-level planning and involvement, would appear to offer the greatest potential in that it is a compromise between too little and too much.

B. EXTENSIONS OF CURRENT INEFFECTIVE PRACTICES

Despite their multivariate designs the grandiose programs quite often exhibit few truly new or creative approaches.

In one recent paper documenting the failure of national social service programs one reason is declared to be that these programs

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[1]Nancy Jo Derby. ESAA III Pilot Project Assist 1975-76 Final Evaluation Report. Austin, Texas: Austin Independent School District, Office of Research and Evaluation, 1976.

[2]Pellegrin, op. cit. P. 96.

exemplified the growth of bureaucracy. "Animal and plant species grow by multiplication; the educational-social organizations attempted to add more programs of essentially the same type."[1]

In AISD and elsewhere the tendency is to design new programs much the same as past ones. Rarely have programs been developed from a comprehensive search of the literature on potential programs; rather approaches are usually derived from extensions of existing programs within the district or from the serendipitous knowledge of designers. Cost/benefit potentials have not generally been calculated as a part of the program design process. Where program design is charged to school staffs as in the State Compensatory Education programs the provision of such input information would appear to be a particularly useful step. The critical necessity of such input is almost chillingly realized in the face of well-replicated findings that show the primary source of information relating to innovations, at least at the elementary level, is ...the textbook salesperson.[2]

C. SPECIFICITY OF PROGRAM GOALS AND PLANNING

By and large innovative programs everywhere in past years have been stated with very general, abstract goals. Once again this is

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[1]Pellegrin, op. cit. P. 96.

[2]Donald C. Orlich, T.R. Ruff, and H.R. Hansen. Stalking Curriculum: Or where do elementary principals learn about new programs. Educational Leadership. Vol. 33, No. 8, May 1976. Pp. 614-621.

amply documented as a national problem in the literature:

> It was taken for granted that general goals could be translated into specific objectives during the implementation phase. Behavioral changes at work, to the limited extent that they were foreseen, were assumed to take place as required when operational problems arose. Similarly, it was thought that common understandings of the nature, meanings, and objectives of [the project] would develop and be maintained in each school after the implementation had begun.[1]

These assumptions traditionally have not been accurate, and the results are that the goals are subject to interpretation by what is typically a new inexperienced staff. In AISD's own projects evaluated this year as in past years, we even find rather major project staff changes even within the course of the year--Title VII, Title 1, and ESAA Project Assist. Lacking specificity, each staff must rediscover--if possible--what the project should be doing.

> ...problems did not "work themselves out" under operational conditions. Throughout the implementation year goals continued to be stated in general terms. There was an inability to relate the goals to what was being done by the staff. Accordingly, familiar work routines were not fundamentally changed. Shared views of [the project] continued to be elusive.
>
> Indeed, the concept of [the project] itself continued to be vague and susceptible to a host of personal definitions. ...New personnel added to the staff for the implementation year were poorly informed about project goals, even to the point that some had not even read the funding proposals or other basic documents.[2]

Even where relatively specific process and input objectives are initially stated, the next essential step is rarely taken. A quite

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[1]Roland J. Pellegrin, op. cit. P. 96.

[2]Ibid. Pp. 96-97.

specific day-by-day or week-by-week schedule on both a long and short range basis should be developed. Project staffs typically appear to go from crisis to crisis both from this lack of planning and from the relationship problems discussed previously. Thus, even where programs have well formulated process objectives, as with Title VII this year, few of them are typically achieved.[1]

D. STAFF DEVELOPMENT

Every single program implemented in AISD depends to a greater or lesser degree upon staff development. Unfortunately, staff development, as seen both in the three years of our evaluations and in the national literature, suffers serious problems. One writer has called it "Education's disaster area."[2] On the one hand, our district and others typically have no staff development model into which project staff development can mesh. This could be compared to teaching a subject without curriculum guides, course sequencing, a text series, or any other articulation. Districtwide as a result we don't know where we've been, where we are going, or seemingly even what we're doing with much surety. Program staff development activities overlap, compete, and get lost. Needs assessment is fragmented and

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[1]Glynn D. Ligon. Final Evaluation Report: 1975-76 ESEA Title VII Bilingual Project. Austin, Texas: Austin Independent School District, Office of Research and Evaluation, 1976.

[2]Lonnie Wagstaff and Tom McCollugh. Inservice education: Education's disaster area. Administrators's Notebook. Vol. 21, No. 8, 1973.

often based on personal preferences rather than district needs; staff development is thus not systematically prioritized, and staff development is everywhere competing for resources of time.

On the other hand, there truly appears to be no reasonable time when staff development can occur. Our evaluations have systematically documented when it can't occur. Summers are out--teachers go to school or Europe, teach in summer school, or are just plain not interested. After school in the afternoon, everyone is too tired. Utilizing substitutes and pulling teachers from the classroom hurts instruction. Teachers need to have parent conferences, plan, talk to other teachers, grade accumulated papers, and do a score of other things on C-Days.

Yet teachers and planners do say they need inservice (although planners and project staff say it far more vehemently and consistently than teachers and principals) while few of them agree on what it should be.

A solution to these twin dilemmas of staff development is far from apparent, but it is clear that planning programs with major staff development components is futile until some resolution of these problems does occur.

E. STAFFING

The problems the staff will encounter and the superhuman characteristics needed have previously been laid out. Program designs usually call for staff whose qualifications surpass even those,

however. Idealistic designs call for a bilingual, curriculum development specialist of great skill, training, intellect, and interpersonal skills (Title VII), or a project director skilled in project management, proposal writing skill, aide training expertise, and specialization in reading (Project Assist). Finding or replacing such staff--usually after the school year begins because of late funding--would be little short of a miracle. Finally, the salary will typically be little above that for a classroom teacher.

Obviously, realistic designs will be based on realistic staffing requirements.

F. OVERALL

To sum up, the assessment of the realism of a project design will utilize criteria related to "the project's complexity, centrality, consonance, ...the nature and amount of change required... and its implementation strategy." Every project design should undergo such assessment. A potential contribution that it appears the Office of Research and Evaluation might make to the district in the coming year would be to assist in developing a model for staff and administrators to use in assessing or evaluating project designs using such criteria.

5. EVALUATION

One area in which ORE feels it has learned a great deal is in how evaluation can best be conducted and used in program improvement.

The evaluation process, we feel must:

.be accountability focused.
.be rigorous in design.
.collect implementation data as well as outcome data.

In its use phase, we feel it should:

.be a part of a systemwide, common planning approach.
.be focused on real decisions ultimately to be made.
.lead to recommendations and actions.
.be carried out for the organization's top priority concerns.

On the negative side, there are two things that we should not do:

.Contract evaluations to outside firms.
.Conduct evaluation where resources are inadequate.

A. ACCOUNTABILITY FOCUS

The Office of Research and Evaluation began evaluating programs in 1973-74 with a dual focus service to programs through ongoing "formative" evaluation and accountability information on programs to AISD and its public through "summative" evaluation.

To promote the service function, close and constant interaction with program staff was envisioned. It was thought that the program staff should participate in evaluation staff selection, and that evaluation staff should participate in program planning sessions. There was even some thought of housing program and evaluation staff together; in one program (Project Assist) project and evaluation staff were in fact housed in the same room.

After three years of trial and effort, ORE has come to believe that functions of evaluation are best accomplished through staff and procedures which are "accountability focused." The reasons for

this are complex and have been explicated elsewhere.[1]

It may be said, however, that even the "formative function" appears to be served most usefully in the sense that a program and staff which fully understands that the evaluation unit is accountability focused will be more closely watchful of the program implementation.

The accountability function demands an evaluation unit which is somewhat detached from the program and school staff. The danger in the integral involvement with program staff is twofold.

First, the evaluator must always guard against being co-opted by the program, thus losing his own objectivity. The danger here, of course, lies in too close identification with the project. Sidney Marland criticized early federal program implementation because either programs were not evaluated or because the program directors themselves were permitted to carry out the evaluations. In speaking on the efforts of the program directors he recognized their human tendancy: "I must assume they possessed a natural and healthy bias in favor of their own enterprises."[2] Evaluators are no less human. Moreover, the possibility of direct intervention of the program staff in the censorhip or concealment of data is less likely to occur under the independent arrangement.

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[1]Freda M. Holley, et. al. Models for the delivery of school district evaluation: Service or accountability? Paper presented to the Annual Meeting of the American Education Research Association, San Francisco, 1976.

[2]Sidney P. Marland. A responsible stewardship. Phi Delta Kappan, 1972, 54. P. 88.

Second, the program staff may suffer a very real sense of betrayal and alienation when they are faced with an "accountability report" from an evaluator with whom they have interacted as a co-worker and "service" evaluator. Indicators are that staff members can more clearly accept and interpret information, however negative, from a source whose function is unitarily defined than from one regarded as a dichotomous source. The reasons for this are best explicated by a quotation from Maslow:

> "In may early years in teaching, I certainly loved my students and felt very close to them and wanted to be buddies with them. I learned only slowly that while I could keep my smiles and friendliness and so on separated from the grades, i.e., I could certainly love somebody who wasn't a very good student of psychology, they rarely could accept and understand this. Normally, when I was friends with students, they felt I had betrayed them if they got bad grades. They thought of me as a hypocrite, as a turncoat. . . . .Slowly I had to give it up, until now, especially in large classes, I keep my distance and maintain English-style relationhips rather than getting very close and buddylike."[1]

A final important factor with respect to the choice of the accountability focus is an admission of the lack of facility with which an evaluation unit can provide "formative" information. In reality the process of collecting and analyzing data is so time consuming that feedback can rarely be given to a program staff in sufficient

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[1]Abraham Maslow, as quoted in Gene V. Glass. A paradox about excellence of schools and the people in them. Educational Researcher, Vol. 4, No. 3, March 1975. P. 10

time to guide their efforts with much facility. Moreover, if a staff feels relieved of the monitoring function, they may be less alert and intuitive regarding implementation processes. While an evaluation design absolutely must call for enough process data to verify the existence and quality of the implementation, the major requirement for ongoing program monitoring appears to be more efficiently left with the staff. Of course, data from the evaluation should still be provided to staff as it becomes available.

B. RIGOROUS DESIGN

All the literature and our own experience suggests that the more rigorous the evaluation design, the more certain we can be of our answers. The prime definiton of rigor is quite simply "random assignment" to treatment and alternative or control treatments. We are consistently told by the literature that this is essential; we are consistently unable to carry this out in the educational setting. The reasons are of two types. First, the autonomy of schools to select "treatments" is threatened by randomization. Second, it is held that we cannot deny students "good" treatment. Both of these arguments are questionable. The basic assumptions are that the treatment is both beneficial and available to all who need it.[1] Both of these assumptions are in fact false. With respect to the "beneficial" assumption, there is not one single "treatment" in education today that we can enact with any certainty

that it will produce better results than another. There is, however, evidence that any new treatment or any new educational activity has a chance of being harmful:

> The purpose of evaluation is to ascertain whether or not the treatment is beneficial. There are numerous cases in which supposedly helpful treatments have been found to be harmful.[1]

Perhaps, one good example of this is the evidence that is beginning to mount up in our evaluations that "the more adults present in a classroom the lower the pupil achievement." Although it has been declared unthinkable to "deny classroom aides" to help teachers help students, in view of this data (admittedly inconclusive at this time) the possibility clearly exists that we may be hurting student achievement by adding those aides. The parallel to this situation is how we might react if this were a drug being used on all patients without researching its effects.

With respect to the selection factor:

> Given that all those in need cannot possibly be given the treatment due to its scarcity, random selection of respondents for treatments is not only scientifically but also ethnically unbiased and thus is as fair a procedure as possible. Or, given that the treatment cannot be administered simultaneously to all who need it, some respondents can be randomly selected to receive it early, with those who receive late acting as controls.[2]

The truth will remain that the farther our designs get from random assignment, the less certain we can be about the answers we derive. This does not mean our answer will be untrue or even un-

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[1] Paul M. Wortman. Evaluation research. American Psychologist. Vol. 30, No. 5, May 1975. P. 570.

[2] Ibid. P. 571.

reliable, but certainty about these will be reduced. Evaluation has some techniques (time series designs, comparison groups, post hoc matching, etc.) that can be used, but there is no good substitute from random assignment. Evaluation has no magic wand which can salvage answers from bad program designs.

C. IMPLEMENTATION DATA

This entire paper is in fact documentation for the necessity of implementation data collection. Unless we know what our treatment or program really consists of, our outcome data will mean little.

D. SYSTEMWIDE PLANNING

A great deal of energy and effort is expended on planning in AISD. The cabinet plans, budgets are formulated, principals set objectives, proposals get written. The problem with that planning is, first, no formal model integrating the planning process exists and second, that it is not centrally coordinated or monitored. Moreover, there is no systematic definition of the feedback data that is to be used in the various planning efforts.

Until data feedback judgments are formaily incorporated as a part of the planning process, evaluation data will not reach its maximum potential.

E. PRIORITIES

The most important decisions facing the system require the best data as input. Moreover, since evaluation is an expensive

process, it should be directed at the most important decisions. From both directions, then, comes the requirement that priorities should be set for both decision questions and evaluation foci.

F. RECOMMENDATIONS AND ACTIONS

In 1975-76, ORE made recommendations to decison-makers regarding the information collected. A far more desirable route is being followed this year with the recommendations to come from the school staff. How well this works will have to be assessed in terms of the eventual actions taken.

G. CONTRACTED EVALUATION

ORE has interfaced with outside evaluation contractors each year since we began. The interface with the contractor almost always cost as much in district time and resources as did the evaluation contract in money. Rarely have the contracts resulted in high-quality evaluations. Moreover, the lack of knowledge of the contractor of the system and program context may lead to misinterpretations of data. When the contractor leaves, he takes with him the reservoir of program knowlege he has gained and it cannot benefit future program designs or evaluation efforts.

Contracted audits of AISD evaluation efforts would however, be desirable in much the same pay-off framework that leads us to have financial audits.

H. EVALUATIONS WITH INADEQUATE RESOURCES

There is a minimum resource level for an evaluation below which the quality and comprehensiveness of the evaluation is so low as to be dangerous. There comes a point when we should ethically

refuse to carry out an evaluation because of such factors. That point was reached with the evaluation of the ESAA programs this coming year. Although the need for evaluation is high, the information that could have been collected with the proposed resources would have been inadequate to result in better decisions. The same is true of the proposed resources to evaluate the Community School effort. Increasingly, ORE will be trying to increase the cost/effectiveness of evaluation activities while yet paying as much heed to the potential effectiveness factor as to the cost.

CONCLUSION

In summary, from the literature and from ORE evaluations comes substantial support for the hypotheses that the route to improved programs in AISD will be enhanced by:

1. Setting priorities by which programs are approved or disapproved.
2. An understanding of the district as an organization.
3. An understanding of the program implementation process.
4. Realistic program designs.
5. Maximum use of evaluation information.